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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,367	08/15/2003	Richard H. Schlosberg	2001B052A/2	2531

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EXAMINER	
STOCKTON, LAURA LYNNE	

ART UNIT	PAPER NUMBER
1626	

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/642,367	SCHLOSBERG ET AL.	
	Examiner	Art Unit	
	Laura L. Stockton, Ph.D.	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) *47 and 48* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/24/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-48 are pending in the application.

Election/Restrictions

Applicants' election with traverse of Group I, directed to a process of making (claims 1-46), in the reply filed on January 12, 2006 is acknowledged. The traversal is on the ground(s) that the restricted species are within the same field of search and examination of the claims filed would expedite prosecution without requiring an unreasonable amount of additional search time.

Applicants' argument has been considered but has not been found persuasive. As noted in the Restriction, each of the groups require separate search considerations, see the different subclass searches. Therefore, it would impose an undue burden on the Examiner and the Patent Office's resources if the instant application were unrestricted.

The requirement is still deemed proper and is therefore made FINAL.

Claims 47 and 48 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention. Applicant timely traversed the restriction (election) requirement in the reply filed on January 12, 2006.

It is suggested that in order to advance prosecution, the non-elected subject matter be canceled when responding to this Office Action.

Information Disclosure Statement

The Examiner has considered the Information Disclosure Statement filed on December 24, 2003.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

No support in the specification or the originally filed claims can be found for the amendments to claims 1, 3, 14, 16, 25, 27, 38 and 40 per the Preliminary Amendment filed August 15, 2003. Particularly, the phrase "carbonation catalyst comprising carbonates and/or bicarbonates of quaternary ammonium bases". In

the specification, "catalyst" is always singularized and therefore, only a single catalyst is interpreted, not mixtures. Therefore, having the phrase "carbonates and/or" in the independent claims and "further comprising a halogen-free carbonation catalyst", as found in claim 3, for example, are not described and the claims lack written description as such. Applicants did not state {page number(s) and line number(s)} where support could be found for the changes made in the Preliminary Amendment. Applicants should specifically point out the support for any amendments. See M.P.E.P. §§ 714.02 and 2163.06.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase "a halogen concentration of about 5 ppm or less" is unclear since the catalyst is halogen-free and none of the reactants recite that a halogen can be present. See claims 4, 14, 17, 25, 28, 38 and 41 for same.

In claim 2, "Claim I" should be changed to "Claim 1".

Additionally, the catalyst found in claim 3 has a halogen but is considered a "halogen-free carbonation catalyst". See claims 16, 27 and 40 for same.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the

conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 4-15, 17-26, 28-39 and 41-46 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,407,279. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claimed process states particular catalysts, temperature and

pressure ranges whereas independent claim 1 of the patent does not state particular temperature and pressure conditions.

However, the patent discloses particular catalysts as found in column 2. Further, the patent discloses that the reaction temperature is from about 50° C up to about 250° C and the pressure is preferably from about 2000 Kpa (column 5, lines 21-45). One skilled in the art would thus be motivated to utilize the process of Buchanan et al. to obtain the instant claimed process with the expectation of obtaining dialkyl carbonates and diols. Therefore, the instant claimed process would have been suggested to one skilled in the art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4-15, 17-26, 28-39 and 41-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al. {U.S. Pat. 6,407,279}, taken alone, and in view of the combination of teachings in Emmons et al. {U.S. Pat. 3,535,341} and McClellan {U.S. Pat. 2,873,282}.

Determination of the scope and content of the prior art (MPEP §2141.01)

Applicants claim a process of making dialkyl carbonate and a diol from alkylene oxide, carbon dioxide and an aliphatic monohydric alcohol comprising (a) reacting an alkylene oxide with carbon dioxide in

the presence of a halogen-free carbonation catalyst comprising carbonates and/or bicarbonates of quaternary ammonium bases to provide a crude cyclic carbonate and (b) reacting said cyclic carbonate with an aliphatic monohydric alcohol in the presence of said halogen-free carbonation catalyst. Buchanan et al. (see entire reference and especially columns 1, 3-5, 7 and 9) teach a process of making dialkyl carbonate and a diol from alkylene oxide, carbon dioxide and an aliphatic monohydric alcohol.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the process of Buchanan et al. and the process instantly claimed is that Buchanan et al. generically describe the instant catalyst comprising carbonates and/or bicarbonates of quaternary ammonium bases. However, Emmons et al. (column 1, lines 35-53) and McClellan (columns 1 and 2) each teach that it is known to use quaternary ammonium compounds

as catalysts in processes of making alkylene carbonates (Applicants' cyclic carbonate produced in step a).

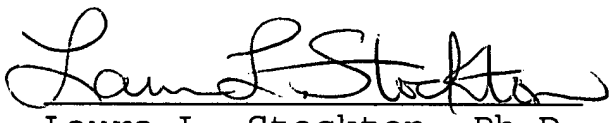
Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

One skilled in the art would have been motivated to utilize the processes taught by the above prior art to arrive at the instant claimed process with the expectation of obtaining a dialkyl carbonate and a diol. Since each of the above cited references teach similar processes, the combination of these references would also teach Applicants' claimed invention. Therefore, the instant claimed process would have been suggested to one skilled in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura L. Stockton whose telephone number is (571) 272-0710. The examiner can normally be reached on Monday-Friday from 6:15 am to 2:45 pm. If the examiner is out of the Office, the examiner's supervisor, Joseph McKane, can be reached on (571) 272-0699.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The Official fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



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April 14, 2006